

The opinion in support of the decision being entered today was **not** written for publication and is **not** binding precedent of the Board.

Paper No. 30

UNITED STATES PATENT AND TRADEMARK OFFICE

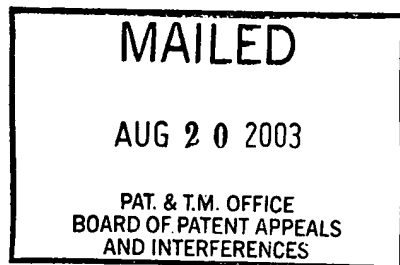
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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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**Ex parte** SUJEET KUMAR,  
HARIKLIA DRIS REITZ, XIANGXIN BI  
and  
NOBUYUKI KAMBE

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Appeal No. 2001-1031  
Application No. 09/136,483

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ON BRIEF

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Before GARRIS, LIEBERMAN, and POTEATE, **Administrative Patent Judges.**

POTEATE, **Administrative Patent Judge.**

**ON REQUEST FOR REHEARING**

Appellants request rehearing of our Decision on Appeal entered February 27, 2003 (Paper No. 28), wherein we affirmed the examiner's final rejection of claims 1-3, 5-16 and 19-22 as unpatentable over Rostoker alone or in view of Ueda.

Denied.

**OPINION**

Appellants argue that the Board erred in its decision to affirm the examiner's rejection for essentially the following three reasons:

1. The Board improperly construed the term "comprising" in the claims to include additional particles (e.g., a tail) that have properties which are at odds with the specific characteristics recited in the claims. See Request for Reconsideration, Paper No. 29, received May 2, 2003, paragraph bridging pages 3-4.

2. The Board's analysis of Rostoker's particle size distribution (Rostoker, column 7, lines 4-26) ignores the discussion of the quality factor "Q" and, therefore, is based on factual error. See *id.*, pages 4-6.

3. The examiner and the Board mistakenly placed the burden on applicants to establish that the disclosure in the Rostoker patent does not enable one of ordinary skill in the art to practice applicants' claimed invention. See *id.*, pages 6-11.

We have carefully considered the arguments presented by the appellants, but we are not persuaded that our decision to affirm the examiner's final rejection of the claims as

unpatentable under 35 U.S.C. § 103 was in error. We respond to each of the issues raised by appellants in detail below.

**1. Whether the Board erred in interpreting  
the term "comprising" to include  
the presence of a tail**

As correctly pointed out by appellants, during patent prosecution, claim language is given its broadest reasonable interpretation consistent with the Specification. *In re Morris*, 127 F.3d 1048, 1054, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997). According to appellants, the Board's interpretation of the word "comprising" to include a particle collection having a tail "is especially at odds with Applicants' specification since the specification states that the plot of particle diameters does not have a tail at large diameters." Request for Reconsideration, page 4. In support of their position, appellants reference the Specification, page 20, line 16 to page 21, line 10.

Claim 1 requires that the collection of particles include less than about 1 in  $10^6$  particles having a diameter greater than about three times the average diameter of the collection of particles. The above referenced portion of the Specification includes the statement "[a]n effective cut off in the tail indicates that there are less than about 1 particle in

10<sup>6</sup> hav[ing] a diameter greater than a particular cut off value above the average diameter." See specification, page 21, lines 3-7. Accordingly, we are in agreement with appellants that claim 1, as drafted, precludes the presence of a tail. Therefore, we modify our Decision on Appeal to the extent that it is inconsistent with our conclusion that the term "comprising" in claim 1 precludes the presence of particles which constitute a tail. This modification does not, however, effect our conclusion that the invention as claimed in claim 1 is obvious.

Claim 19 does not include the above-noted limitation recited in claim 1. Rather, "claim 19 is specifically directed to the sharp drop in the distribution of particle sizes away from the average particle size. This narrow distribution about the average ***is independent from the lack of a tail*** in the distribution, although they both relate to the overall particle size distribution." Appeal Brief, Paper No. 19, received September 5, 2000, page 4. Thus, we remain of the opinion that use of the term "comprising" in claim 19 does not preclude the presence of a tail.

**2. Whether the Board erred in its analysis of the discussion in Rostoker relating to particle size distribution**

The Federal Circuit requires that the Board, in its decisions, "set forth its findings and the grounds thereof, **as supported by the agency record**, and explain its application of the law to the found facts." *In re Lee*, 277 F.3d 1338, 1342, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002). Thus, in the present case, our decision was based on the examiner's findings that Rostoker discloses a collection of particles having both the sizes and distribution within appellants' claimed ranges (see Examiner's Answer, Paper No. 22, mailed November 16, 2000, page 3, penultimate paragraph, referencing Rostoker, column 4, lines 12-24 and page 5, last paragraph, referencing column 7, lines 4+). See Decision on Appeal, paragraph bridging pages 7-8.

As noted in our Decision on Appeal, we found the examiner's reference to these specific teachings in Rostoker "sufficient to establish a prima facie case of obviousness." *Id.*, page 8. Our discussion of quality factor "Q" and sample calculations were merely "[f]or appellants' reference." *Id.*, footnote 3. In the Reply Brief, Paper No. 24, received January 8, 2001, page 8, second paragraph, appellants indicated that they

did not understand the particle size distribution formulae explained in column 7 of Rostoker. Interestingly, appellants now proffer the declaration of Professor Singh in an effort to not only refute the Board's findings regarding Rostoker's particle size distribution, but also for the purpose of providing a detailed analysis of Rostoker's particle size distribution formulae.

Although it is true that the initial burden of presenting a ***prima facie*** case of obviousness rests on the examiner, ***In re Oetiker***, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992), where, as here, the examiner has demonstrated that a reference teaches overlapping ranges, the burden shifts to the appellants to rebut the examiner's ***prima facie*** case of obviousness. ***In re Inland Steel Co.***, 265 F.3d 1354, 1363, 60 USPQ2d 1396, 1403 (Fed. Cir. 2001). While expert declarations are an appropriate form of rebuttal evidence, we decline to consider Professor Singh's declaration since appellants have failed to provide a showing of good and sufficient reasons as to why this declaration was not earlier presented. See 37 CFR § 1.195.

**3. Whether the Board erred in concluding that the Rostoker patent enabled practice of Applicants' claimed invention without undue experimentation**

According to appellants,

*[w]hile the Rostoker patent does not indicate that the Siegel method is the only way of making the particles, the mere suggestion that it is not limited to the Siegel method is not the equivalent of enabling disclosure. . . .*

Applicants' [sic] have presented **unrebutted** evidence that the Siegel patent does not enable the practice of Applicants' claimed invention . . . . A person of ordinary skill in the art would need to exert at least undue experimentation unless the skilled artisan knows how to make or obtain the claimed particles without any further guidance since Rostoker does not provide any guidance.

Request for Reconsideration, page 9.

The examiner found that Rostoker discloses a polishing composition comprising a collection of particles which meet the limitations recited in claims 1 and 19. Further, Rostoker claims a method of polishing a substrate using a medium of aluminum oxide particles having sizes and a distribution which overlap those of the present invention. **See** claim 10. 35 U.S.C. § 282 (February, 2003) provides that "[e]ach claim of a patent . . . shall be presumed valid." A reference is presumed operable and

Appeal No. 2001-1031  
Application 09/136,483

the burden is on the applicant to provide facts rebutting this presumption of operability. ***See In re Sasse***, 629 F.2d 675, 681, 207 USPQ 107, 111 (CCPA 1980). For the reasons stated in our Decision on Appeal (see page 9), we do not find appellant's arguments persuasive in overcoming the presumption of operability of the Rostoker patent.

In sum, while we have reviewed our decision in light of the appellants' Request for Reconsideration, we have decided not to modify our conclusion that claims 1-3, 5-16 and 19-22 are unpatentable under 35 U.S.C. § 103.




Appeal No. 2001-1031  
Application 09/136,483

**TIME PERIOD FOR RESPONSE**

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

***DENIED***

  
BRADLEY R. GARRISS  
Administrative Patent Judge

  
PAUL LIEBERMAN  
Administrative Patent Judge

BOARD OF PATENT  
APPEALS  
AND  
INTERFERENCES

*Linda Poteate*  
LINDA POTEATE  
Administrative Patent Judge

LRP : psb

Appeal No. 2001-1031  
Application 09/136,483

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